Listing of Claims

1. (Withdrawn) An isolated nucleic acid comprising a nucleotide sequence set forth in SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:91, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:112, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, and SEQ ID NO:127.

2. (Withdrawn) A nucleic acid comprising at least 20 consecutive nucleotides of a nucleotide sequence of claim 1.

3. (Withdrawn) A nucleic acid comprising at least 30 consecutive nucleotides of a nucleotide sequence of claim 1.

4. (Withdrawn) A nucleic acid comprising at least 40 consecutive nucleotides of a nucleotide sequence of claim 1.

5. (Withdrawn) An isolated nucleic acid encoding the protein encoded by the gene comprising the nucleotide sequence set forth in SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:91, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:112, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, and SEQ ID NO:127, or a homolog thereof.

6. (Withdrawn) A host cell containing the nucleic acid of claim 1 or 5.

7. (Withdrawn) A nucleic acid comprising a nucleic acid that selectively hybridizes under stringent conditions with the nucleic acid of claim 1 or 5.

8. (Withdrawn) A nucleic acid having a region within an exon wherein the region has at least 50 % homology with a nucleic acid of claim 1 or 5.

9. (Withdrawn) A nucleic acid having a region within an exon wherein the region has at least 60 % homology with a nucleic acid of claim 1 or 5.

10. (Withdrawn) A nucleic acid having a region within an exon wherein the region has at least 70 % homology with a nucleic acid of claim 1 or 5.

11. (Withdrawn) A nucleic acid having a region within an exon wherein the region has at least 80 % homology with a nucleic acid of claim 1 or 5.

12. (Withdrawn) A nucleic acid having a region within an exon wherein the region has at least 90 % homology with a nucleic acid of claim 1 or 5.

13. (Withdrawn) A nucleic acid having a region within an exon wherein the region has at least 95 % homology with a nucleic acid of claim 1 or 5.

14. (Withdrawn) A polypeptide comprising the amino acid sequence encoded by the nucleic acid of claims 1 or 5.

15. (Withdrawn) A nucleic acid comprising a regulatory region of a gene comprising the nucleotide sequence set forth in SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:76, SEQ ID NO:77, SEQ ID

NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:91, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:112, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, and SEQ ID NO:127, or a homolog thereof.

16. (Withdrawn) A construct comprising a regulatory region of claim 15, wherein the regulatory region is functionally linked to a reporter gene.

17. (Withdrawn) A method of reducing or inhibiting a viral infection in a subject, comprising administering to the subject an amount of a composition that inhibits expression or functioning of a gene product encoded by a gene comprising the nucleic acid set forth in SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82; SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87,

SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, or SEQ ID NO:127 or a homolog thereof, thereby treating the viral infection.

18. (Withdrawn) The method of claim 17, wherein the gene is selected from a nucleic acid encoding a gene product from the group consisting or, or the gene product is selected from the group consisting of: tristetraprolin (human ZFP-36), 6-pyruvoyltetrahydropterin synthase, a eukaryotic DnaJ-like protein, ID3 (inhibitor of DNA binding 3), N-acetylglucos-aminyltransferase I (mGAT-1), cleavage stimulation factor (CSTF2), TAK1 binding protein, human zinc transcription factor ZPF207, Dlx2, Smad7 (Mad-related protein), and P-glycoprotein (mdr1b).

19. (Withdrawn) The method of claim 17, wherein the subject is a human.

20. (Withdrawn) A method of reducing or inhibiting a viral infection in a subject comprising mutating *ex vivo* in a selected cell an endogenous gene comprising the nucleic acid set forth in SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52,

SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82; SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, or SEQ ID NO:127 or a homolog thereof, to a mutated gene incapable of producing a functional gene product of the gene or to a mutated gene producing a reduced amount of a functional gene product of the gene, and placing the cell in the subject, thereby reducing viral infection of cells in the subject.

21. (Withdrawn) The method of claim 20, wherein the cell is a hematopoietic cell.

22. (Withdrawn) The method of claim 20, wherein the subject is a human.

23. (Withdrawn) The method of claim 20, wherein the cell is from the subject.

24. (Canceled)

25. (Withdrawn) A method of screening a compound for reducing or inhibiting a viral infection, comprising administering the compound to a cell containing the construct of claim 16 and detecting the level of the reporter gene product produced, a decrease or

elimination of the reporter gene product indicating a compound for reducing or inhibiting the viral infection.

26. (Withdrawn) A method of screening a compound for effectiveness in treating or preventing a viral infection comprising contacting the compound with the gene product of a cellular gene comprising nucleic acid set forth in SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82; SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, or SEQ ID NO:127, or a homolog thereof, and detecting the

function of the gene product, a decrease or elimination of the function indicating a compound for reducing or inhibiting viral function.

27. (Withdrawn) A method of suppressing a malignant phenotype in a cell in a subject, comprising administering to the subject an amount of a composition that inhibits expression or functioning of a gene product encoded by a gene comprising the nucleic acid set forth in SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:36 or SEQ ID NO:94, or a homolog thereof, thereby suppressing a malignant phenotype.

28. (Withdrawn) A method of screening a compound for effectiveness in treating a viral infection, comprising administering the compound to a cell containing a cellular gene functionally encoding a gene product whose overexpression inhibits reproduction of the virus but does not prevent survival of the cell and detecting the level of the gene product produced, an increase in the gene product indicating a compound effective for treating the viral infection.

29. (Withdrawn) A method of screening for a compound that can suppress a malignant phenotype in a cell comprising administering the compound to a cell containing a nucleic acid functionally encoding a gene product encoded by a gene comprising the nucleic acid set forth in SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:36 or SEQ ID NO:94, or a homolog thereof, and detecting the level of the gene product produced, an increase in the gene product indicating a compound effective for suppressing the malignant phenotype.

30. Canceled

31. Canceled

32. (Previously presented) A method of identifying a cellular gene necessary for viral growth in a cell and nonessential for cellular survival, comprising

(a) transferring into a cell culture a vector encoding a selective marker gene lacking a functional promoter,

(b) selecting cells expressing the marker gene,

(c) infecting the cell culture with the virus, and

(d) isolating from the surviving cells a cellular gene within which the marker gene is inserted, thereby identifying a gene necessary for viral growth in a cell and nonessential for cellular survival.

33. (Previously presented) A method of screening a compound for antiviral activity, comprising a) administering the compound to a cell containing a cellular gene that is necessary for viral growth in the cell, but not necessary for survival of the cell; b) detecting the level and/or activity of the gene product produced by the cellular gene, a decrease or elimination of the gene product and/or gene product activity indicating a compound with antiviral activity, wherein the cellular gene can be identified by the method comprising:

a) transferring into a cell culture a vector encoding a selective marker gene lacking a functional promoter;
b) selecting cells expressing the marker gene;
c) infecting the cell culture with the virus, and
d) isolating from the surviving cells a cellular gene within which the marker gene is inserted.

34. (Previously presented) A method of screening a compound for antiviral activity, comprising administering the compound to a cell containing a cellular gene comprising the nucleic acid set forth in SEQ ID NO:75 or a cellular gene comprising a nucleic acid that hybridizes to the nucleic acid set forth as SEQ ID NO: 75 under stringent hybridization conditions of hybridization at 68°C in 6X SSC or 6X SSPE followed by washing at 68°C, and detecting the level and/or activity of the gene product produced, a decrease or elimination of the gene product and/or gene product activity indicating a compound with antiviral activity, wherein the cellular gene functionally encodes a gene product necessary for viral growth in the cell, but not necessary for survival of the cell.

35. (Previously presented) A method of screening a compound for antiviral activity comprising:

a) administering the compound to a cell containing a cellular gene comprising the nucleic acid set forth in SEQ ID NO:75 or a cellular gene comprising a nucleic acid that hybridizes to the nucleic acid set forth as SEQ ID NO: 75 under stringent hybridization conditions of hybridization at 68°C in 6X SSC or 6X SSPE followed by washing at 68°C, and functionally encoding a gene product necessary viral growth in the cell but not necessary for survival of the cell;

b) contacting the cell with a virus;

c) detecting the level of viral infection;

d) associating the level of viral infection with the level of the gene product and/or gene product activity of the cellular gene of a), a decrease or elimination of viral infection associated with a decrease or elimination of the gene product and/or gene product activity of a cellular gene of a) indicating a compound with antiviral activity.

36. (Previously presented) A method of screening a compound for antiviral activity, comprising administering the compound to a cell containing a cellular gene comprising the nucleic acid set forth in SEQ ID NO:75, or a cellular gene comprising a nucleic acid that hybridizes to the nucleic acid set forth as SEQ ID NO: 75 under stringent hybridization conditions of hybridization at 68°C in 6X SSC or 6X SSPE followed by washing at 68°C, wherein the cellular gene can be identified by the method comprising:

a) transferring into a cell culture a vector encoding a selective marker gene lacking a functional promoter;
b) selecting cells expressing the marker gene;
c) infecting the cell culture with the virus, and

d) isolating from the surviving cells a cellular gene within which the marker gene is inserted.

and functionally encoding a gene product necessary for viral growth in the cell but not necessary for survival of the cell and detecting the level and/or activity of the gene product produced, a decrease or elimination of the gene product and/or gene product activity indicating a compound with antiviral activity.

37. (New) A method of making an antiviral compound, comprising:

a) synthesizing a compound;

b) administering the compound to a cell containing a cellular gene that is necessary for viral growth in the cell, but not necessary for survival of the cell, wherein the cellular gene is identified by the method comprising:

(i) transferring into a cell culture a vector encoding a selective marker gene lacking a functional promoter;

(ii) selecting cells expressing the marker gene;

(iii) infecting the cell culture with the virus, and

(iv) isolating from the surviving cells a cellular gene within which the marker gene is inserted; and

c) detecting the level and/or activity of the gene product produced by the cellular gene, a decrease or elimination of the gene product and/or gene product activity indicating that an antiviral compound was made.

38. (New) The method of claim 37, wherein the cell contains a cellular gene comprising the nucleic acid set forth in SEQ ID NO:75 or a cellular gene comprising a nucleic acid that hybridizes to the nucleic acid set forth as SEQ ID NO: 75 under stringent hybridization conditions of hybridization at 68°C in 6X SSC or 6X SSPE followed by washing at 68°C.

39. (New) A method of making an antiviral compound, comprising:

a) synthesizing a compound;

b) administering the compound to a cell containing a cellular gene that is necessary for viral growth in the cell, but not necessary for survival of the cell, wherein the cellular gene is identified by the method comprising:

(i) transferring into a cell culture a vector encoding a selective marker gene lacking a functional promoter;

(ii) selecting cells expressing the marker gene;

(iii) infecting the cell culture with the virus, and

(iv) isolating from the surviving cells a cellular gene within which the marker gene is inserted,

c) contacting the cell with a virus;

d) detecting the level of viral infection; and

e) associating the level of viral infection with the level of the gene product and/or gene product activity of the cellular gene of b), a decrease or elimination of viral infection associated with a decrease or elimination of the gene product and/or gene product activity of a cellular gene of b) indicating a compound with antiviral activity was made.

40. (New) The method of claim 39, wherein the cell contains a cellular gene comprising the nucleic acid set forth in SEQ ID NO:75 or a cellular gene comprising a nucleic acid that hybridizes to the nucleic acid set forth as SEQ ID NO: 75 under stringent hybridization conditions of hybridization at 68°C in 6X SSC or 6X SSPE followed by washing at 68°C.

41. (New) A method of making an antiviral composition, comprising:

a) administering a compound to a cell containing a cellular gene that is necessary for viral growth in the cell, but not necessary for survival of the cell, wherein the cellular gene is identified by the method comprising:

(i) transferring into a cell culture a vector encoding a selective marker gene lacking a functional promoter;

(ii) selecting cells expressing the marker gene;

(iii) infecting the cell culture with the virus, and

(iv)isolating from the surviving cells a cellular gene within which the marker gene is inserted;

b) detecting the level and/or activity of the gene product produced by the cellular gene, a decrease or elimination of the gene product and/or gene product activity indicating that the compound is an antiviral compound; and

c) placing the antiviral compound in a pharmaceutically acceptable carrier.

42. (New) The method of claim 41, wherein the cell contains a cellular gene comprising the nucleic acid set forth in SEQ ID NO:75 or a cellular gene comprising a nucleic acid that hybridizes to the nucleic acid set forth as SEQ ID NO: 75 under stringent hybridization conditions of hybridization at 68°C in 6X SSC or 6X SSPE followed by washing at 68°C.

43. (New) A method of making an antiviral composition, comprising:

a) administering a compound to a cell containing a cellular gene that is necessary for viral growth in the cell, but not necessary for survival of the cell, wherein the cellular gene is identified by the method comprising:

(i) transferring into a cell culture a vector encoding a selective marker gene lacking a functional promoter;

(ii) selecting cells expressing the marker gene;

(iii) infecting the cell culture with the virus, and

isolating from the surviving cells a cellular gene within which the marker gene is inserted;

b) contacting the cell with a virus;

c) detecting the level of viral infection;

d) associating the level of viral infection with the level of the gene product and/or gene product activity of the cellular gene of b), a decrease or elimination of viral infection associated with a decrease or elimination of the gene product and/or gene product activity of a cellular gene of b) indicating that the compound is an antiviral compound; and

e) placing the antiviral compound in a pharmaceutical composition.

44. (New) The method of claim 43, wherein the cell contains a cellular gene comprising the nucleic acid set forth in SEQ ID NO:75 or a cellular gene comprising a nucleic acid that hybridizes to the nucleic acid set forth as SEQ ID NO: 75 under stringent hybridization conditions of hybridization at 68°C in 6X SSC or 6X SSPE followed by washing at 68°C.